

AD-A086 064

AUSTRALIAN MILITARY FORCES CANBERRA PSYCHOLOGICAL RE--ETC F/8 5/9

JOB SATISFACTION.(U)

JUL 79 T C RAMSDEN

UNCLASSIFIED

TN-3/79

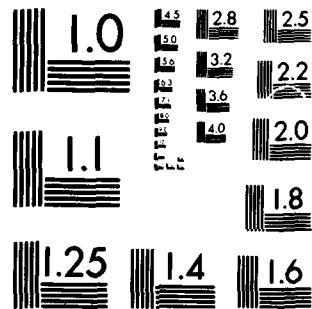
ML

1 of 1

AD-A086 064



END
DATE
FILMED
8-80
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

ARJ02351

LEVEL

Technical Note 3/79

12

11 Jul 77

9) Technical notes

12 24

14 TN-3/77

6 Job Satisfaction

By

10
CAPT T. C. RAMSDEN

July 1979

APPROVED
FOR PUBLIC RELEASE

DTIC
ELECTE
JUL 1 1980
S D A

This Directorate of Psychology publication has been prepared by
1 Psychological Research Unit and is authorised for distribution by DPSYCH-A.

LTCOL D.J. ARMSTRONG
Commanding Officer
1 Psychological Research Unit
Campbell Park Offices (CP 4-6-13)
CANBERRA ACT 2600

ISSN 0156-8809

402992

80 6 30 193

DDC FILE COPY
402-992

ADA 086064

APPROVED
FOR PUBLIC RELEASE

THE UNITED STATES NATIONAL
TECHNICAL INFORMATION SERVICE
IS AUTHORISED TO
REPRODUCE AND SELL THIS REPORT

ABSTRACT

Despite the amount of literature on job satisfaction and job performance over the last thirty years, both concepts are still vaguely defined. The dominant theory of job satisfaction until the mid 1960's was Herzberg's two factor theory. The strengths and inadequacies of this theory (and alternatives) with supporting appropriate research evidence are discussed. Variables which have been assumed or found to be related to job satisfaction include pay, position within a hierarchy, social and economic background and job enrichment. The research indicates that the relationship of job satisfaction to other variables is generally neither direct nor simple and is still ill-understood. Job satisfaction and job performance are also found to be neither directly nor simply related. Other factors, such as expectations, pay and knowledge of results intercede to complicate whatever relationship may exist. Research evidence and explanatory models of the job satisfaction/job performance relationship are discussed. Basically, the state of understanding of the nature of the job satisfaction phenomenon and its correlates is poor.

A. Reason For	
1. <input checked="" type="checkbox"/> 1.01	2. <input type="checkbox"/> 1.02
3. <input type="checkbox"/> 1.03	4. <input type="checkbox"/> 1.04
Justification	
By	
Date	
Availability Codes	
Dist	Avail and/or special
A	

The findings and views expressed in this Technical Note are the result of the author's research findings and are not to be taken as the official opinion or policy of the Department of Defence (Army Office).

Introduction

This paper attempts to define and discuss the concepts of job satisfaction and job performance. It also discusses any relationships that are assumed or found to exist between the two concepts. Any modifications to the two concepts which may help to lead to a more thorough explanation and understanding of the determinants of job satisfaction and job performance are also discussed. The paper's approach is essentially that of trying to relate empirical findings to the main theoretical approaches which have received wide currency over the last thirty years or so.

JOB SATISFACTION

Definitions

This is a term that has been much used by organisational and industrial writers (not just psychologists). Despite the frequency of usage of the term there seems to be "a certain lack of clarity surrounding the meaning of job satisfaction" (Korman, Greenhaus and Badin, 1977, p 182). The traditional concept of job satisfaction appears to have been that of a unidimensional phenomenon, something like a global feeling of pleasure or displeasure with a job, or, as Katzell (in Owens, 1969) stated, "a species of affect or hedonic tone for which the stimuli are events or conditions experienced in connection with jobs or occupations" (p 139). Such an approach would assume that a job related variable which offers satisfaction to an employee will, if absent, create dissatisfaction. Korman, et al defined job satisfaction as "the overall level and direction of affect or emotional tone towards one's job and job situation" (p 182). As research quoted later in this paper shows, the term cannot be regarded as synonymous with job motivation or morale although some writers have helped engender some confusion (see P 3).

Perhaps the most widely discussed approach towards job satisfaction has been that of Herzberg's two factor model. His model seems to have been the first major conceptual advance on unidimensional models. Herzberg proposed that, within any work situation, there are intrinsic variables which will give rise to job satisfaction (satisfiers or motivators). There will also be extrinsic variables which will create dissatisfaction (dissatisfiers or hygiene variables). Satisfier (motivator) factors are those which are basically work related, such as work interest and challenge, achievement and recognition. Hygiene (dissatisfier) variables are those which occur within the overall work context, such as technical supervision, interpersonal relationships, physical surroundings and salary. (Herzberg, Mausner and Snyderman, 1959).

Herzberg would maintain that motivator variables account for job satisfaction above a certain level of indifference but have no effect below that level; hygiene variables account for dissatisfaction below a certain level of indifference but contribute nothing to job satisfaction above that level. In other words, motivator variables contribute only positively to job satisfaction and hygiene variables contribute only negatively to job satisfaction. Hygiene variables are unable to contribute in a positive way to job satisfaction and motivator variables are unable to contribute to job dissatisfaction.

Despite the confusion created by Herzberg's use of 'motivator' and 'satisfier' synonymously, it seems clear that motivation to work and job satisfaction are not the same. According to Lodahl (1964), Herzberg saw job satisfaction as deriving from the receiving of rewards which would enable the person to achieve his aspirations. Motivation, on the other hand, was that which brought about an improvement in work performance, or as Lodahl stated, satisfiers have 'a definite motivational character' (p 486). Lawler (1966) clearly distinguished between the two, stating that "the evidence does not

indicate that job satisfaction can be equated with the motivation to perform well" (p 162).

The Research

Since 1959, a large amount of work has been done in an attempt to gauge the veridicality of Herzberg's model. As may be seen, much of the criticism of his work is based on methodological factors and relates to how well the theory encompasses the complexity of such a phenomenon as job satisfaction. The essence of the criticisms is that the two-factor model is too simplistic. Wernimont, Toren and Kapell (1970), in a study of the effects of job factors on job satisfaction and job effort of scientists and technicians, found that such workers clearly identified different factors as being important in determining each aspect of the job. Also, in line with Lodahl (1964) and Lawler (1966), they concluded that it was "incorrect to use the terms 'motivator' and 'satisfier' interchangeably" (p 95).

In a study by Halpern (1966) support was offered for Herzberg's motivator - hygiene theory. Halpern found that workers were equally satisfied with both hygiene and motivator aspects of their most-liked job and that motivator aspects contributed significantly more to overall job satisfaction than did hygiene factors. In view of Hardin's (1965) findings, however, the fact that Halpern's respondents were asked to rate the job that they liked best (not necessarily their present job), means that Halpern's findings must be viewed with skepticism.

Another study which provided some partial support for the Herzberg model was that by Friedlander (1965) of the relationship between the importance of environmental factors and the satisfaction/dissatisfaction they caused. He isolated two main sets of factors. The first set contributed mainly towards dissatisfaction, were especially important to those who were dissatisfied, and became more important as they became more dissatisfying. The second set of factors, composed of work situational factors such as sense of achievement in the job, "contributed mainly towards satisfaction and tended to become more important as it became more satisfying" (Friedlander, 1965, p 164). Friedlander concluded that his findings were in general agreement with Herzberg's theory.

Whilst there is some evidence for Herzberg's theory, the weight of evidence against the theory is extremely strong; sufficiently so to cast strong doubts upon its explanatory adequacy. The main research evidence is discussed below.

In an attempt to assess the adequacy of the Herzberg model, Hinrichs and Mischkind (1967) studied the effect of satisfiers/dissatisfiers on "overall job satisfaction using data solely for assessing present satisfaction with a current job situation" (p 192). (Their emphases.) One of the grounds upon which Hinrichs and Mischkind criticised Herzberg's theory is that his method rested upon obtaining from people reports based upon their recall of past satisfactions or dissatisfactions with a job or jobs. They asserted that "Herzberg's data do not adequately test his own notions because the research was not based solely on current satisfaction. As a result there is no clear-cut basis for drawing inferences about the relative contribution of various job factors to overall job satisfaction" (p 192). Hinrichs and Mischkind predicted that satisfiers would operate bidirectionally, being the main cause of satisfaction in high-satisfaction subjects and the main cause of dissatisfaction in low-satisfaction subjects. They also predicted that hygiene variables would account for less than total satisfaction in high-satisfaction subjects and less than total dissatisfaction in low-satisfaction subjects. Whilst neither their nor Herzberg's proposals were substantiated they concluded that there was "doubt about the wisdom of the simple two-factor approach for describing the determinants of overall job satisfaction" (p 198).

Ewen, Smith, Hulin and Locke (1966) subjected both the unidimensional model and Herzberg's model of job satisfaction to test in a number of areas for which the two models made different predictions. They found clear support for neither theory but did find that intrinsic factors were "the most potent factors in the work situation in terms of their relationship to overall job satisfaction ... and that the manner in which extrinsic factors operate may depend on the level of satisfaction with the intrinsic factors" (p 549). They further stated that the "concepts of satisfiers and dissatisfiers are misleading and do not accurately indicate the way in which job satisfaction variables affect overall job satisfaction" (p 549).

Burke (1966a) casts further doubt on Herzberg's motivator and hygiene variables. He found that neither motivator nor hygiene variable was unidimensional and that both were an over-simplification of a complex job satisfaction phenomenon. Burke (1966b), in another study, obtained results which "would seem to question the essence of the motivator/hygiene theory" (p 5). He found, in part, that respondents endorsed an equal number of motivator and hygiene variables to describe a dissatisfying situation and that respondents used the same characteristics to describe satisfying and dissatisfying job situations. He concluded that his investigation, as well as others, indicated that "job satisfaction is multidimensional - both for satisfying and dissatisfying jobs - and the same characteristics may be important contributors to both satisfaction and dissatisfaction" (P 5). Such a finding is supported in a study by Malinovsky and Barry (1965).

The above conclusion is also supported in a study by Locke (1973) in which he attempted to assess what factors contributed to satisfaction/dissatisfaction among white and blue collar workers and whether the two groups differed significantly. He found, inter alia, the "the same classes of events produced both job satisfaction and dissatisfaction in both white-collar and blue-collar employees" (p 74). However, it was also found that different agents were responsible for the same events in each job level - in the case of satisfiers, self was seen as the agent, whereas, in the case of dissatisfiers, other was the most commonly mentioned agent.

Centers and Bugental (1966) found that the contribution of intrinsic and extrinsic factors to job satisfaction varied according to occupational level; specifically that "white collar workers consistently placed a greater value on intrinsic sources of job satisfaction (whereas) blue collar workers consistently placed a greater value on extrinsic sources of job satisfaction" (p 196).

Lindsay, Marks and Gorlow (1967) found that, whilst Herzberg's hygiene and motivator variables accounted for most of the variance in job satisfaction, motivators contributed more to job satisfaction than did hygienes. They concluded that "Herzberg's conception of job satisfaction as being comprised of two unipolar continua should be re-evaluated" (p 339). A study by Wernimont (1966) examined two aspects of Herzberg's theory; firstly, that five main satisfiers (recognition, achievement, work itself, advancement and responsibility) were responsible for job satisfaction while five main dissatisfiers (salary, company policies and practices, technical aspects of supervision and working conditions) were responsible for job dissatisfaction and; secondly, the effects of Herzberg's data-collection procedures on his findings. Using two methods (a forced-choice method to control for respondent defensiveness and Herzberg's free-choice method) he found that "satisfaction with the job can be due to the high levels of satisfaction with intrinsic (satisfier) factors, and dissatisfaction can be due to low levels of satisfaction with intrinsic factors. Extrinsic (dissatisfier) factors cause both satisfaction and dissatisfaction less readily than do intrinsic factors." (p 50). Wernimont found also that Herzberg's free-choice method tended to lead to response bias in recall.

Graen (1966) criticized Herzberg's original studies on the grounds that data was derived by interviewers and interpreted by them or others. To avoid this problem, Graen devised a questionnaire which closely reflected Herzberg's job categories. After administration of the questionnaire to 153 engineers (the same type of subjects as those which Herzberg used) and factor analysis, Graen concluded that "Herzberg's categories appear not to belong together. They did not demonstrate sufficient homogeneity to yield factors" (p 566).

Hardin (1965) has also cast serious doubt upon the usefulness of any retrospective job satisfaction rating technique. He showed that perceived change in job satisfaction was a reflection of current, but not past, job satisfaction and concluded that "perceived change in job satisfaction is a poor predictor of computed (ie. actual) change, and the quasilongitudinal design seems very weak" (p 367). Hardin recommended that, though real longitudinal studies were more difficult and expensive, they were the most satisfactory method of gauging changes in job satisfaction. Herzberg's retrospective method has been further criticised by Ewen et al (1966) who raised, for example, such problems as selective bias in recall and the tendency of respondents to project their own failures onto external causes. This criticism received strong support in a study by Wall (1973) who found that highly ego-defensive people in particular tended to attribute work dissatisfaction to hygiene factors rather than to motivators and concluded that, to a large extent, Herzberg's original findings were a result of ego-defensive processes within respondents.

Wood and Le Bold (1970), in a study of job satisfaction amongst 3000 engineering graduates, found that job attitudes may well include an "overall, global or unidimensional component" (p 184) but that additional specific factors were also evident, ie. "job satisfaction is comprised of both general and specific features" (p 184).

Dunnette, Campbell and Hakel (1967) praised Herzberg's two-factor theory as being a "truly insightful break with the static concepts of the past" (p 148) but were critical of the methods used to test the theory which, they believed, were inadequate and which almost guaranteed support for the theory. They charged that the proponents of the Herzberg theory were "more concerned with the game of protecting and nurturing this pet theory than in advancing knowledge about job motivation and job satisfaction" (p 148). To further test Herzberg's theory, Dunnette et al, devised a study employing two sets of thirty-six statements, each used as Q sort decks for describing satisfying and dissatisfying job events. These were administered to subjects in six occupational groups. They found that job satisfaction could derive from either motivator or hygiene (job content or job context) variables or both. They concluded that, regardless of methodology used (except for Herzberg's own), research had clearly shown that the two-factor theory was untenable as it stood. They stated that "it seems that the evidence is sufficient to lay the two-factor theory to rest, and we hope that it may be buried peaceably" (p 173).

If the Herzberg theory, in its original form, is untenable, what are the alternatives : another theory or eclecticism?

Alternative Theoretical Approaches

Lichtman and Hunt (1971) provide a thorough overview of changes in organisational thinking, especially during this century, and it is outside the scope of this paper to repeat their coverage. Essentially, however, the picture that emerges is one of alternating emphases on the primacy of the organisation and the primacy of the individual. The tendency has been to emphasise one at the expense of the other. In the last three decades, it appears that various theories emphasising the importance of the individual

have held sway. Such a statement, however, should not be taken to imply any consensus regarding the nature of the person or of the way the person relates to the organisation and learns to accommodate himself to it, or vice versa. Rather, there have been strongly differing views on the subject. Perhaps, however, the three main schools of thought have been: (1) that adhering to the Herzberg two-factor theory, already sufficiently discussed; (2) that emphasising, as does the Lawler-Porter model, the essential rationality of economic man; (3) integrative approaches such as that of Korman.

Two of the main proponents of the "rational man" school have been Lawler and Porter. Their approach emphasises that man strives to perform only so far as performance will provide the returns man desires. In other words, the argument goes, man wishes to achieve a desired outcome, he sees that such an outcome may be achieved by behaving in a certain way; so he behaves in the manner which will achieve that result.

Another key thinker of the "rational man" school has been Vroom who stresses that performance is a result of a worker's perception of what abilities are necessary to do a job, whether he sees himself as possessing those abilities, and how much he values the possession of such abilities. In other words, "a person is motivated to perform effectively when effective performance is consistent with his conception of his abilities and with the value he places on them" (Lichtman and Hunt, 1971, p 281). Some of the research pertinent to such approaches as those outlined above is discussed later in this report.

The third theoretical approach can loosely be called the eclectic or integrative approach. Probably the key proponent of such an approach is Korman. Korman's (1977) relatively contemporary summary of thinking about job satisfaction clearly shows how little is known about the phenomenon itself or its relation to other work variables. He regards no single theoretical explanation of job satisfaction as adequate. There are very few job or personal variables which, Korman stated, can be said to relate in any clear way to job satisfaction. Thus, in spite of the large amounts of literature which have been issued on the subject of determinants of job satisfaction in the last three decades or so, "findings are so conflicting and equivocal that there is no semblance of a general law" (Locke, Smith, Kendall, Hulin and Miller, 1964, p 313).

In an attempt to integrate an apparently large number of research findings, Korman (1970) developed a hypothesis of work behaviour which emphasised the concept of self (particularly self evaluation and self perception) as well as the concept of cognitive "consistency". Briefly, his hypothesis was that "individuals will engage in and find satisfying those behavioural roles which will maximise their sense of cognitive balance or consistency" (p 32). Two derivations of this hypothesis were that, firstly, a person would perform on a job in a way which was consistent with his or her self image and, secondly, that people would choose and find most satisfying a job which conformed most closely to their self perceptions (p 32). In support of his hypothesis, Korman quoted several research studies which were tangentially, or more, relevant. He also discussed apparent contradictions which were effectively explained by his hypothesis. For example, it has been often found that increasing incentives does not bring about a rise in work performance. Korman would have attempted to explain such a phenomenon by arguing that such moves would only succeed whilst the change was seen as being appropriate by the people it was designed to affect. If, for example, a worker or workers believed that they were incapable of functioning at a higher level, they would not increase output. If, however, a worker's self image was such that he believed he was capable of increasing output, and the incentive was regarded as fair and just, he would increase output accordingly. In part, then, "individuals seek a level of reward which is appropriate and congruent with what they are

used to" (p 33). Also, as performance is partially a function of worker's self esteem, overall performance will "be a function of the extent to which the organisation provides an ego-enhancing atmosphere, as opposed to one that is debilitating" (p 33). Whilst Korman considers that his integration of need-fulfillment theory and reference-group theory needs refinement there is some evidence which indicates that it may be on the right path. Gavin (1973), for example, attempted to test the proposition that there would be a significant, positive relationship between reward expectancies and job performance among high self-esteem individuals. Whilst his hypothesis was only partially supported, Gavin concluded that certain personality factors (self-esteem, Need-achievement) determined goal-oriented behaviours in an employee who perceives that rewards depend upon performance.

Another factor which appears to influence level of performance is that of intention. Locke (1966) found that "the higher the level of intended achievement the higher the level of performance" (p 66). Such a finding may well be integrated into a scheme such as Korman's. Level of intention could be argued to be dependent upon what a person believes he is capable of achieving. If a person's self perception is such that he is unable or unwilling to try to work harder, it is possible that any external attempts to raise performance as such will be unsuccessful.

The next part of this paper will attempt to summarize the research into the relationships between job satisfaction and other variables, viz: turnover and absenteeism, job enrichment, life style, job interest, hierarchical position, temporal factors and change, and pay.

Turnover and Absenteeism

What is the relationship of job satisfaction to employee turnover and absenteeism? Reviews of the subject (Fournet, et al, 1966; Waters, Roach and Waters, 1976) have indicated that there is a low positive relationship between job satisfaction and length of tenure. Korman (1977) agrees that the relationship is positive and argues that the often-low level of the relationship may be a function of economic or geographic factors (weather, etc) (p 227).

In terms of absenteeism, the relationship with job satisfaction and job performance is far less clear. According to Fournet, et al (1966), most studies showed that job satisfaction was negatively related to absenteeism though the relationship was complex. Nicholson, Brown and Chadwick-Jones (1967), however, stated, on the basis of their literature survey, that the empirical basis for the belief in a negative job satisfaction/absenteeism relationship was doubtful. In a carefully designed and controlled study aimed to test the nature of the relationship, Nicholson, et al (1976) found that there was no significant relationship between job dissatisfaction and absence from work. They concluded that "the common view of absence as a pain-reductive response on the part of the worker to his work experience is naive, narrow and empirically unsupportable" (p 735). Such a finding receives implicit support from a study by Morgan and Herman (1976) which reported that rather than attempt to control absenteeism by manipulating job situation factors, a more effective method was to reward attendance and to penalize non-attendance.

Life Style and Social Environment

Much of the writing on factors affecting job satisfaction has concentrated on work factors almost as though the worker functions in his work isolated from non-work environmental factors. It would seem more reasonable to argue that the worker brings to his work-situations a myriad of attitudes, feelings and intentions which derive largely from his home, school, recreational, etc., situations: i.e., derived from influences external to the work situation. In other words, it may well be that the worker's approach to work is not

discontinuous with his reactions to non-work situations and may be profoundly affected by those situations.

Dimarco and Norton (1974) have asserted that an important influence on job satisfaction may be the degree of congruity between a person's life style and organisational structure. They hypothesised that job satisfaction may be adversely affected if there is any significant incongruity between the two factors (life style and organisational structure). In a study of seventy-eight professional people, they found, firstly, that there were significant relationships between life style-organisation structure pairs; secondly, that there was a significant, positive relationship between job satisfaction and an independent life style, and; thirdly, that "job satisfaction is maximised when the individual places a high value on individuality, inner directedness, freedom and independence and is in an environment that is characterised by placing a great deal of control and responsibility in the hands of the individual" (p 590).

A further aspect of external influences upon job satisfaction was explored by Hulin (1966). In a study of personnel in a large merchandising and retail company, Hulin analysed the effects of various community characteristics ("prosperity, unemployment, slums, productive farming, and decrepitude of the communities in which (the organisations) were located" (p 185)) on job satisfaction. He found, inter alia, firstly, that there was a significant relationship between job satisfaction, especially pay satisfaction, and the economic characteristics of the community and, secondly, that job satisfaction was a product of the discrepancies between expectations and experience" (p 190). Hulin concluded that his finding raised "serious doubts concerning the validity of the suggestion by Herzberg that the determinants of how a man reacts to his job are to be found in the intrinsic characteristics surrounding the job" (p 191). In other words, a major determinant of worker attitudes is a person's reference group(s) as well as general social environment.

Hulin's findings received support from a study by Hackman and Lawler (1971) who found significant differences between urban and rural workers in terms of desire for higher order need-satisfaction, the latter group being higher on higher order need strength. They concluded, in part, that their findings demonstrated that prediction of response of workers to job characteristics must take into account sociological factors as well as organisational and individual factors.

Job Enrichment

A factor which is commonly assumed to have a significantly positive effect on worker job satisfaction is job enrichment. Job enrichment has been defined as the attempt "to make a job more interesting, challenging and significant by adding dimensions such as variety, autonomy, feedback and control" (Umstot, Bell and Mitchell, 1976, p 379). The rationale for most, if not all, job enrichment programmes is that job enrichment increases worker job satisfaction which, in turn, leads to improved job performance and, finally, increased output.

How valid are such assumptions? Is the relationship so simple and, if not, what is the nature of the relationship, if any? Research to date provides no unequivocal answer to such questions.

According to Umstot, et al (1976), and Korman (1977) the weight of research evidence indicates that there is a moderately positive relationship between job enrichment and job satisfaction. Research by Bishop and Hill (1971), however, indicates the complexity of an area such as job enrichment. In an attempt to assess the differential effects of job enlargement (one dimension of job enrichment, though not synonymous) and job change upon low

status and high status workers, they found that job enlargement per se had no greater influence on job satisfaction and tension than did job change. They also found that lower status workers tended to respond more positively to job change than higher-status workers. Bishop and Hill concluded that the factors affecting response to job change and job enlargement were far more complex than had previously been assumed.

Umstot, et al (1976) attempted to assess the effects of goal setting and job enrichment on job satisfaction and job performance. They found that job enrichment was significantly and positively related to job satisfaction but not to job performance. On the other hand, goal setting had a significant impact on performance but little effect on satisfaction.

Oldham, Hackman and Pearce (1976) attempted to gauge the effects of job enrichment according to workers' prior satisfaction with such factors as pay, relations with other workers, etc. They found that job enrichment had a greater effect on workers whose satisfaction with work context factors was already high than it did on dissatisfied workers.

Hackman and Lawler (1971) found that there was a strong positive relationship between workers' wishes to fulfill higher order needs (personal growth, etc) and their performance in, and satisfaction with, jobs which provided greater variety, autonomy, task identity and feedback. Based upon research such as that above, it appears reasonable to argue that optimal employee/organisation interaction will occur when job content is matched as closely as possible with the people who will be required to perform that job, and vice versa.

Whilst essentially in favour of job enrichment programmes, Korman (1977) and Korman et al (1977) warned that job enrichment should not be regarded as a panacea for all work satisfaction, work morale and performance problems. They point out that it may be difficult to enrich some jobs at all; also that in certain situations enrichment may merely exacerbate problems. Korman (1977) has argued, indeed, that some job enrichment programmes may serve to increase job dissatisfaction by making jobs more ambiguous, thereby creating "tension and anxiety and other dysfunctional outcomes on both an individual and organisational level" (Korman et al, p 187). One study which shows the mixed success of a job enrichment programme was reported by Locke, Sirota and Wolfson (1976). They found that the job enrichment programme served to raise productivity and attendance but had a negative effect on employee attitudes towards the organisation.

Job Interest

If anything, the dearth of research into the relationship between job interest and job satisfaction is even greater than that concerning social determinants. It seems reasonable to argue that job interest is positively and significantly related to job satisfaction and job performance. Yet the evidence, such as it is, provides no support for such an assumption. Schletzer (1966) found, for example, that there was no significant relationship between ratings of job interest on the Strong Vocational Interest Battery and job satisfaction measures. It may be argued that such a finding is a function of the methods Schletzer used. It may also be a result of the vagueness of and difficulty in measuring a concept such as job satisfaction. Whatever methodological problems are present, however, Korman (1977) sees a finding such as Schletzer's as evidence against the assertion that satisfaction results from congruency between personal values, needs and job characteristics (p 216).

Hierarchical Position

Does a person's relative position within an organisational hierarchy affect the degree of satisfaction that person derives from his job? What is the nature of the relationship; linear or otherwise, positive or negative?

Research to date indicates that hierarchical position is significantly related to job satisfaction. Porter and Mitchell (1967), in a comparative study of needs satisfaction within military and business hierarchies found, for example, that feelings of fulfillment satisfaction rose as rank rose. This was the case in both types of hierarchy. They also found that when two sub-sets of hierarchy within the military (commissioned and non-commissioned officers) were compared, the higher ranking NCOs reported more need fulfillment than the lower-ranking commissioned officers. Their explanation of this finding was that the people who made up each group formed expectations and related those to perceived satisfaction mainly within the framework of their own group, i.e. officers compared themselves only to other officers whereas the NCOs' reference group ranged from private to the highest ranking NCO. Such a finding was supported in a study by Owens (1967) who found that the higher the rank (within the private-NCO range) a person held, the more likely it was that a person would choose to re-engage in the Army. Another aspect of the relationship between hierarchical position and job satisfaction - expectations of advancement - was explored by Kipnis (1964). In a study of US Navy Petty Officers, he found that people with low expectations of advancement within the US Navy hierarchy also significantly tended to have less favourable attitudes towards work change, towards the Navy and, to a lesser extent, towards superior officers. Kipnis concluded that "individuals with low mobility expectations are more dependent upon their present job level for long-term support" (p 170).

Bleda, Gitter and D'Agostino (1977) studied an aspect of the effects of leader behaviour on subordinates' satisfaction. They found that, in a military situation, subordinates' satisfaction was most strongly linked to the behaviour of that superior who was perceived as the persons who initiated orders affecting Army life. Still important, but significantly less so, was the behaviour of other superiors who were perceived as being responsible for enacting the originators' orders. They also found that organisational factors rather than reward factors were seen to be more important influences of overall satisfaction with Army life. Their conclusion, that "it is the 'management' not the 'foreman' who play the critical role in determining the nature of the rank and file's military experience" (p 48), has obvious implication for the Australian Army. Such a study would be worth replicating in the Australian situation.

A study by Kavanagh, MacKinney and Wolins (1970) to some extent provides a non-military comparison of that of Bleda et al (1977). They found, in part, that the job behaviour of middle managers had a significant effect on the manager's "organisational unit" and this in turn affected the performance of subordinates as a group but not so much individually.

Both studies provide evidence, not only that superiors' behaviour can affect the performance and satisfactions of subordinates, but also, that workers in both military and non-military contexts create subtle distinctions between various aspects of an organisation whether it be as a part of a group or as an individual. It appears then that Korman's summary statement that "the higher the job in terms of level, responsibility, autonomy, and variety, the better" (p 226) the chance is that the person will be satisfied with his job, finds wide support in the research literature.

Temporal and Dynamic Aspects

Much of the literature on job satisfaction and job performance has seemed to regard the phenomena as static in nature, able to be measured by essentially static means. In so doing it may well be that much of the essence of the phenomena under study is either dealt with at best superficially or ignored altogether. Hence the often-found problem of low or non-existent relationships between job satisfaction and probably related variables.

Korman et al (1977) consistently emphasised the need to consider temporal aspects in any consideration of job satisfaction and related matters. They state that "an adequate theory of job satisfaction needs first of all to take into account people's changing conception of themselves and their needs (or values or expectations) over time" (p 182).

Such urgings received support in a study by Van Maanen and Katz (1976) who also noted a lack of research into the effects of temporal factors on job satisfaction. They carried out a study which described "the over time patterns of work satisfaction" (p 602). The purpose of their research was "to determine the pattern of work satisfaction for employees at different career stages and then to compare these patterns across different occupational careers" (p 604). Testing employees from four career categories - Administrative (department heads, inspectors, etc); Professional (psychologists, teachers, etc); Clerical (bookkeepers, messengers, clerks, etc); Maintenance (truck drivers, laundry operators, gardeners, etc) - from different organisations, they found that career patterns differed "in measurable and appreciable ways. In short, insofar as work satisfaction is concerned, there may be as much difference (if not more) within a particular career as there exists between various careers" (p 602).

Hardin (1967) discussed the notion that change, or the desire for change, is related to job satisfaction. In particular, he discussed two propositions: firstly, that "the desire for specific changes is positively related to general readiness for change and negatively related to job satisfaction" and, secondly, that "the desire for specific changes regresses more strongly upon job satisfaction than upon general readiness for change among those with long work-life expectancy than is the case among those with short remaining work life" (p 21). Hardin's findings generally confirmed his hypotheses. He suggested, on the basis of his findings, that various factors, such as the amount of importance attached to satisfaction with a job aspect and a belief in the possibility of changing that job aspect may, by interacting with job satisfaction, influence the desire for change.

Pay

Early theories of job satisfaction were based on the assumption of the rational economic man. In such theories, it was argued that man will strive to maximise returns for labour; ie. that man was essentially greedy and he could be motivated by satisfying that greed. Based on such assumptions it would appear reasonable to propose that there would be a strong, positive relationship between pay, job satisfaction and job performance. However, such a simple relationship does not seem to have been found in the research. Ronen's (1977) summary of the literature on the subject, for example, indicates wide disagreement between writers. Perhaps a reason for this disagreement is the difficulty in separating the pay variable from other factors which may influence job satisfaction, such as the need for status, promotion or self-esteem. According to Opsahl and Dunnette (in Ronen), "amazingly little is known about how either interacts with other factors or how it acts individually to affect job behaviour" (p 583). In an attempt to assess whether non-monetary aspects of job satisfaction were similar for paid and non-paid workers, Ronen compared reports of job satisfaction of paid and un-paid workers in the same industry. He found that non-paid workers differentiated non-monetary aspects of job satisfaction as clearly as did paid workers. He also found that the four non-monetary aspects of job satisfaction; opportunities for promotion, relationship with co-workers, intrinsic aspects of the work, and attitudes towards immediate supervisors; were similarly ranked by both groups. Fournet et al (1966), in their review of literature, concluded that pay varied in importance from job to job and that income was often ranked well down in relative importance as a factor in job satisfaction (p 174).

Pritchard (1973) directly manipulated the amount of pay and the pay systems in two simulation studies. Whilst expressing some degree of reserve

about his design, Pritchard found that his results provided no support for the Porter and Lawler argument for a pay/satisfaction relationship (see Page 13). Based on previous studies and his own, Pritchard concluded that a conceptualisation of a straight pay/satisfaction relationship was a great over-simplification.

To Weight or Not?

It may be argued that obtaining a measure of a person's satisfaction with various aspects of his job provides only a partial picture and that it may be necessary to weight each rating of each aspect of job satisfaction with a measure of the importance of that aspect to the worker.

Ewen (1967) addressed himself to the questions of the need for and method of weighting such job satisfaction components. He reported that efforts to weight job satisfaction ratings have produced widely varying results, partly because weighting methods have varied. He also stated that weighting methods have not been subjected to concrete validation studies.

In a comparison of three different weighting procedures using a variety of instruments and methods, he found, firstly, that differential weightings were of dubious usefulness; secondly, that weightings failed to yield totals which correlated more highly with a number of indices than non-weighted factors and; thirdly, that there was no evidence that aspects of job satisfaction which were rated highly correlated highly with overall job satisfaction measures. As a result of his findings, Ewen concluded that "weighting the components (of job satisfaction) by using importance measures does not appear to be warranted" (p 73).

Job Satisfaction - Summary

The foregoing discussion has presented previous and current research findings on the nature and correlates of job satisfaction. The amounts of evidence indicating the over-simplicity of unidimensional and two-dimensional models of job satisfaction seems overwhelmingly strong. In essence, it is a multi-dimensional phenomenon, consisting of and resulting from a large number of factors which are related to the work itself and to a myriad of economic and social forces which impinge upon worker's life and job styles.

Job Performance

If anything, the concept of job performance is even more nebulous than that of job satisfaction, partly because it seems that most writers assume that the term is understood. Korman (1977) has attempted to define the concept and to discuss the problems involved in such definitions. Hence, no effort will be made to discuss, in detail, the concept and its problems here. Briefly, however, Korman suggests that job performance is a multi-dimensional, dynamic variable, the nature of which will depend on the values of organisation, individual and society (see Korman, 1977, pp 349-356).

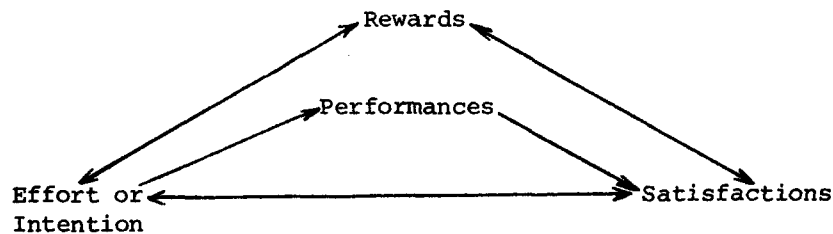
Noting a large amount of research into and observations relating to job performance, MacKinney (1967) observed that there had been little attempt to integrate such (often conflicting) findings into a unified, coherent theory of work performance. He argued that research into the phenomenon of job performance had been largely problem oriented rather than oriented towards validating or modifying a theory of work performance. He stated, "because of the lack of theory, the point of departure necessarily has been the problem itself rather than testing of a wider concept in specific instances" (p 59). Amongst the research findings which he considered needed explanation were, low reliabilities of job performance measures; an inability to predict job performance, especially over the long term; different behaviours of validity levels of various predictors of job success over time; varying predictability of various

groups and sub-groups of workers and, lastly, factors which seemed to be important in accounting for performance in one job were often of no relevance in accounting for performance in other jobs.

In an effort to explain the above, MacKinney proposed that job performance was not only multidimensional but was also dynamic. He stated that job performance consisted of a "number of components or factors which were different at different times. ... Any one of these components may... vary in importance relative to the total performance variance across time" (p 62). Thus, he argued, while performance and psychological variables may well be related, the nature and extent of their relationship will vary with time. Proceeding from such a proposition, MacKinney argued that techniques for measuring job performance and for relating it to other variables which have been static have been largely meaningless. He stated that "we cannot hope to predict a variable which is different from one time to the next without taking change into account" (p 65).

Job Performance and Job Satisfaction - The Nature of the Relationship

The traditional concept of the job satisfaction/job performance relationship was that the former affected the latter in a positive way. In the mid 1950's, however, it began to be argued that there was no simple relationship between the two variables (Korman, 1977; Fournet, et al, 1966). Whilst writers such as Herzberg et al disagreed with such an assertion, it appears that the positing of a non-relationship or, at best, a relationship of "concomitant variation" (Fournet et al, 1966, p 176) was generally accepted. Korman (1977) argued that an inability to find a significant relationship between performance and satisfaction resulted from asking the wrong questions. He suggested that one should ask, under what "conditions does job dissatisfaction lead to decreased performance and under which conditions does it not?" (p 227). While he regarded the question of a satisfaction/performance relationship as yet unanswered, he did provide some evidence for the assertion that expectancies and perceived competence were factors which would moderate the relationship. Cranry and Smith (1968) argued that the usual Performance → Rewards → Satisfaction → Performance model was inappropriate and that a more adequate model would be such:



In such a model, no variable other than effort or intention would have a direct effect on performance. Hence, satisfaction would act on performance only through the variable of effort. Whilst it is not the intention of this paper to attempt to defend the current model, some of the major research which seems relevant to it will be discussed below.

Based on the premise that performance was a function of ability and motivation, Lawler (1966) attempted to determine whether an ability measure would moderate "the relationship between contingency attitudes and performance" (p 154). He found that, amongst high ability managers, there was a "clear relationship between attitudes to work and performance" (p 161) but, in the case of low-ability people, no such relationship existed. It should be noted that Lawler did not equate motivation with satisfaction. Rather, as he used the term motivation, it could be better equated with effort or intention in Smith and Cranry's (1968) model. Despite his findings, Lawler doubted whether using ability as a moderator would increase the low relationship between satisfaction and performance.

Porter and Lawler (in Schuster, Clark and Rodgers, 1971) have proposed that, in a situation where there is a strong relationship between rewards and performance, there should also be a strong relationship between performance and satisfaction.

The ratiocination for this assertion was that high performance causes high rewards which, in turn, results in high satisfaction. Conversely, low performance creates low rewards and, as a result, low satisfaction. If, however, the relationship between rewards and performance is low, there will be little effect in changing either rewards or performance.

In a study of the relationships between merit pay, job satisfaction and job performance, Greene (1973) found that merit pay was a cause of satisfaction but that satisfaction had no effect on performance. He also found that merit pay had no effect on performance but that performance was a cause of satisfaction. Greene concluded that his findings provided support for Lawler and Porter's assertion that "differential performance causes satisfaction" (Greene, 1973, p 99). Such a conclusion may be only partly justified especially when one considers a series of studies by Locke (1965, 1966(a), 1966(b), 1967) in which he explored the relationships of task success, knowledge of results and setting of goals to performance. His findings, along with those of Pritchard (1973) (see page 10) have important implications for any discussion of the connection of reward to performance.

Based on the premise that "level of effort on a task is determined largely by S's conscious performance goals" (p325), Locke (1967) tested the hypothesis that "effects previously attributed to differential knowledge of results (KR) were actually due to different performance goals associated with the different KR conditions" (p 325). He found that specific or 'hard' goals produced a generally higher level of performance than did non-specific goals such as "do your best". He stated that, if the effects of incentives were to be properly understood, it was important to consider the effects of goals or intentions as mediating variables. Locke's conclusion was that to predict the effect of KR on performance level, "it is not enough to know that the individual has such knowledge. It is also necessary to know what he does with it, that is, how he evaluates it and what goals he sets in response to it" (p 328).

The finding also, that definite performance goals, in contrast to "do your best" goals, led to greater task interest, leads perhaps to the conclusion that greater motivation and performance may be obtained if more attention is given to specifying task goals (Locke and Bryan, 1967).

Erez (1977) made the additional point that whilst KR was not sufficient of itself, to affect performance, it may still be necessary as a partial determinant of performance.

In a study designed to test this assertion, Erez found that KR was "a necessary condition for the goal setting performance effective relationship. It facilitates the display of individual differences in self-set goals on the basis of knowledge of individual past performance" (p 627). The implications are clear; it will often be futile to offer extra incentives for performance unless it is known what personal goals workers have already set themselves with regard to individual work performance.

In another effort to assess the effect of moderating variables on the job satisfaction/job performance relationship, Jacobs and Solomon (1977) incorporated two variables, "performance to reward contingency and self-esteem" (p 417) into multiple regression equations. Their results indicated that subjects' perceptions of the performance to reward contingency significantly increased "the relationships between satisfaction measures and performance ratings" (p 418). Their findings with regard to self esteem were similar to

those for the other variable. Whilst the inclusion of these two moderators significantly increased the predictability of satisfaction from performance, they did not provide a full explanation of the association. Jacobs and Solomon consequently suggested that efforts should be made to improve understanding of the relationship between satisfaction and performance by identifying other significant moderating variables.

Schuster, Clark and Rogers (1971) found that pay both influenced performance when employees believed that pay was influenced by performance and, when pay was seen as a potentially satisfying factor, workers tried to work more satisfactorily.

It has been suggested, however, that people who are highly intrinsically motivated in a task may, when offered extrinsic rewards to do that task, actually deteriorate in their performance. The rationale for this, offered by Deci, is that "behaviour that allows a person to feel competent and self determining is intrinsically motivated behaviour" (Pritchard, Campbell and Campbell, 1979, p 9). Hence, the offer of external rewards may serve to alter "a person's perceived locus of causality from within himself to his environment (or) decrease the person's feelings of competence" (p 9). Based on their research, however, Pritchard, et al argue that intrinsic motivation is affected by extrinsic motivation only through some intervening variable. The implication of such a proposal is that, provided a situation is manipulated such that an increase in extrinsic motivation is accompanied by an increase in, say, feelings of accomplishments, both extrinsic rewards and performance may improve simultaneously.

Conclusions

This paper has attempted to draw together what seem to be the main areas of research on job satisfaction and job performance. One thing is clear; there is no dearth of material on the subject of job satisfaction. But equally clear is that despite all the space devoted to the subject, no clear, coherent picture of the nature of job satisfaction itself or of the factors affecting (and affected by) job satisfaction emerges. In a sense, many of the achievements in the area have been negative ones. For example, Herzberg's two-factor model of job satisfaction has been shown to be inadequate; pre-suppositions of rationality in worker and organisational decision making have been shown to be inadequate. Whilst no fully satisfactory explanatory model of worker behaviour has been devised, synthesisers such as Korman have been able to create models which have greater explanatory power and richness than early mid twentieth century models. Also, though still vague, the term job satisfaction and, to a lesser extent job performance, have become more meaningful through determined efforts by some researchers to understand them in an operational sense. They are still hazy, however, and the question must be asked as to whether it may not be an oversimplification to postulate the existence of a phenomenon of job satisfaction. Rather than being a single or dual factorial phenomenon it may, in fact, be so complex, dynamic and situation-specific that no theoretical construct could ever hope to encompass its complexity.

What the research to date has shown (though not as clearly as could be hoped) is that some factors relate relatively directly to job satisfaction and job performance, eg. position within a hierarchy. However, the relationship of other factors to job satisfaction and performance is complex and nebulous. The research indicates no direct relationship between job satisfaction and pay, job performance and pay, job enrichment and job satisfaction and performance. Whatever relationships may exist, intervening variables critically moderate them. Hence, much of the problem seems to be to identify those intervening variables and to incorporate those into any equation that is to be tested.

In essence, then, progress (limited though it is) has been achieved by researchers having been willing to modify or even abandon a priori concepts of what may happen in worker/organisation interactions and by their being willing to try to come to terms with what appear to be very complex phenomena.

REFERENCES

- Andrews, I.R. Wage Inequity and Job Performance: An Experimental Study. Journal of Applied Psychology, 1967, 51, 39-45.
- Baird, L.S. Relationship of Performance to Satisfaction in Stimulating and Nonstimulating Jobs. Journal of Applied Psychology, 1976, 61, 721-727.
- Beer, M. Needs and Need Satisfaction among Clerical Workers in Complex and Routine jobs. Personnel Psychology, 1968, 21, 209-222.
- Bern, D.J. Self Perception. The Dependent Variable of Human Performance. Organisational Behaviour and Human Performance, 1967, 2, 105-121.
- Bishop, R.C. and Hill, J.W. Effects of Job Enlargement and Job Change on Contiguous and Nonmanipulated Jobs as a Function of Worker's Status. Journal of Applied Psychology, 1971, 55, 175-181.
- Bleda, P.R., Gitter, G.A. and D'Agostino, P. Enlisted Men's Perceptions of Leader Attributes and Satisfaction with Military Life. Journal of Applied Psychology, 1977, 62, 43-49.
- Burke, R.J. Are Herzberg's Motivators and Hygienes Unidimensional? Journal of Applied Psychology, 1966, 50, 317-321.
- Burke, R.J. Relative Contributions of Motivators and Hygienes to Satisfying and Dissatisfying Job Situations. Journal of Industrial Psychology, 1966, 4, 1-6.
- Centers, R. and Bugental, D.E. Intrinsic and Extrinsic Job Motivations Among Different Segments of the Working Population. Journal of Applied Psychology, 1966, 50, 193-197.
- Cummings, T.G. and Bigalow, J. Satisfaction, Job Involvement and Intrinsic Motivation: An Extension of Lawler and Hall's Factor Analysis. Journal of Applied Psychology, 1976, 61, 523-525.
- DiMarco, N. and Norton, S. Life Style, Organisation Structure, Congruity and Job Satisfaction. Personnel Psychology, 1974, 27, 581-592.
- Dunnette, M.D., Campbell, J.P. and Hakel, M.D. Factors Contributing to Job Satisfaction and Job Dissatisfaction in Six Occupational Groups. Organisational Behaviour and Human Performance, 1967, 2, 143-174.
- Dyer, L. and Theriault, R. The Determinants of Pay Satisfaction. Journal of Applied Psychology, 1976, 61, 596-604.
- Edel, E. "Need for Success" as a Predictor of Managerial Performance Personnel Psychology, 1968, 21, 231-240.
- Erez, M. Feedback: A Necessary Condition for the Goal Setting Performance Relationship. Journal of Applied Psychology, 1977, 62, 624-627.
- Ewen, R.B., Smith, P.C., Hulin, C.L. and Locke, E.A. An Empirical Test of the Herzberg Two-Factor Theory. Journal of Applied Psychology, 1966, 50, 544-550.
- Ewen, R.B. Weighting Components of Job Satisfaction. Journal of Applied Psychology, 1967, 51, 68-73.

- Fournet, G.P., Distefano, M.K. and Pryer, M.W. Job Satisfaction: Issues and Problems. Personnel Psychology, 1966, 19, 165-193.
- Friedlander, F. Relationships between the Importance and the Satisfaction of Various Environmental Factors. Journal of Applied Psychology, 1965, 49, 160-164.
- Friedlander, F. Motivations to Work and Organisational Performance. Journal of Applied Psychology, 1966, 50, 143-152.
- Gavin, J.F. Self-Esteem as a Moderator of the Relationship between Expectancies and Job Performance. Journal of Applied Psychology, 1973, 58, 83-88.
- Gechman, A.S. and Wiener, Y. Job Involvement and Satisfaction as Related to Mental Health and Personal time Devoted to Work. Journal of Applied Psychology, 1975, 60, 521-523.
- Graen, G.B. Motivator and Hygiene Dimensions for Research and Development Engineers. Journal of Applied Psychology, 1966, 50, 563-566.
- Graen, G.B. Addendum to "An Empirical Test of the Herzberg Two-Factor theory" Journal of Applied Psychology, 1966, 50, 551-555.
- Greene, C.N. Causal Connections among Managers' Merit Pay, Job Satisfaction and Performance. Journal of Applied Psychology, 1973, 58, 95-100.
- Hackman, J.R., and Lawler, E.E. Employee Reactions to Job Characteristics. Journal of Applied Psychology, 1971, 55, 259-286.
- Halpern, G. Relative Contributions of Motivator and Hygiene Factors to Overall Job Satisfaction. Journal of Applied Psychology, 1966, 50, 198-200.
- Hardin, E. Perceived and Actual Change in Job Satisfaction. Journal of Applied Psychology, 1965, 49, 363-367.
- Hardin, E. Job Satisfaction and the Desire for Change. Journal of Applied Psychology, 1967, 51, 20-27.
- Henemann, H.G. Impact of Performance on Managerial Pay Levels and Pay Changes. Journal of Applied Psychology, 1973, 58, 128-130.
- Herzberg, F., Mausner, B. and Snyderman, B.B. The Motivation to Work, 2nd Edition, New York, John Wiley, 1959.
- Hinrichs, J.R. and Mischkind, L.A. Empirical and Theoretical Limitations of the Two-Factor Hypothesis of Job Satisfaction. Journal of Applied Psychology, 1967, 51, 191-200.
- Hulin, C.L. Effects of Community Characteristics on Measures of Job Satisfaction. Journal of Applied Psychology, 1966, 50, 185-191.
- Hulin, C.L. Sources of Variation in Job and Life Satisfaction: The Role of Community and Job Related Variables. Journal of Applied Psychology, 1969, 53, 279-291.
- Hulin, C.L. and Smith, P.C. A Linear Model of Job Satisfaction. Journal of Applied Psychology, 1965, 49, 209-216.
- Hulin, C.L. and Waters, L.K. Regression Analysis of Three Variations to the Two-Factor Theory of Job Satisfaction. Journal of Applied Psychology, 1971, 55, 211-217.

- Ivancevich, J.M. Perceived Need Satisfaction of Domestic versus Overseas Managers. Journal of Applied Psychology, 1969, 53, 274-278.
- Ivancevich, J.M. Effects of Goal Setting on Performance and Job Satisfaction. Journal of Applied Psychology, 1976, 61, 605-612.
- Jacobs, R. and Solomon, T. Strategies for Enhancing the Prediction of Job Performance from Job Satisfaction. Journal of Applied Psychology, 1977, 62, 417-421.
- Kavanagh, M.J., MacKinney, A.C. and Wolins, L. Satisfaction and Morale of Foremen as a Function of Middle Manager's Performance. Journal of Applied Psychology, 1970, 54, 145-156.
- Kesselman, G.A., Hagen, E.L. and Wherry, R.J. A Factor Analytic Test of the Porter-Lawler Expectancy Model of Work Motivation. Personnel Psychology, 1974, 27, 569-580.
- Kirchner, W.K. Relationships between General and Specific Attitudes toward Work and Objective Job Performance for Outdoor Advertising Salesmen. Journal of Applied Psychology, 1965, 49, 455-457.
- Korman, A.K. Self-Esteem Variable in Vocational Choice. Journal of Applied Psychology, 1966, 50, 479-486.
- Korman, A.K. Toward an Hypothesis of Work Behaviour. Journal of Applied Psychology, 1970, 54, 31-41.
- Korman, A.K. Expectancies as Determinants of Performance. Journal of Applied Psychology, 1971, 55, 218-222.
- Korman A.K. Organisational Behaviour. New Jersey, Prentice-Hall, 1977.
- Korman, A.K., Greenhaus, J.H. and Badin, I.J. Personnel Attitudes and Motivation. Annual Review of Psychology 1977, 28, 175-196.
- Lawler, E.E. Ability as a Moderator of the Relationship Between Job Attitudes and Job Performance. Personnel Psychology, 1966, 19, 153-164.
- Lichtman, C.M. and Hunt, R.G. Personality and Organisation Theory: A Review of Some Conceptual Literature. Psychological Bulletin, 1971, 76, 271-294.
- Lindsay, C.A., Marks, E. and Gorlow, L. The Herzberg Theory: A Critique and Reformulation. Journal of Applied Psychology, 1967, 51, 330-339.
- Locke, E.A. Interaction of Ability and Motivation in Performance. Perceptual and Motor Skills, 1965, 21, 719-725 (a).
- Locke, E.A. The Relationship of Task Success to Task Liking and Satisfaction. Journal of Applied Psychology, 1965, 49, 379-385 (b).
- Locke, E.A. Relationship of Task Success to Satisfaction: Further Replication. Psychological Reports, 1966, 19, 1132 (a).
- Locke, E.A. The Relationship of Intentions to level of Performance. Journal of Applied Psychology, 1966, 50, 60-66 (b).
- Locke, E.A. Motivational Effects of Knowledge of Results: Knowledge or Goal Setting? Journal of Applied Psychology, 1967, 51, 324-329.
- Locke, E.A. Satisfiers and Dissatisfiers among White-Collar and Blue-Collar Employees. Journal of Applied Psychology, 1973, 58, 67-76.

- Locke, E.A. and Bryan, J.F. Cognitive Aspects of Psychomotor Performance: The Effects of Performance Goals on Level of Performance. Journal of Applied Psychology, 1966, 50, 286-291.
- Locke, E.A. and Bryan, J.F. Performance Goals as Determinants of Level of Performance and Boredom. Journal of Applied Psychology, 1967, 51, 120-130.
- Locke, E.A., Sirota, D. and Wolfson, A.D. An Experimental Case Study of the Successes and Failures of Job Enrichment in a Government Agency. Journal of Applied Psychology, 1976, 61, 701-711.
- Locke, E.A., Smith, P.C., Kendall, L.M., Hulin, C.L. and Miller, A.M. Convergent and Discriminant Validity for Areas and Methods of Rating Job Satisfaction. Journal of Applied Psychology, 1964 48, 313-319.
- Lodahl, T.M. Patterns of Job Attitudes in Two Assembly Technologies. Administrative Science Quarterly, 1964, 8, 482-519.
- Lodahl, T.M. and Kejner, M. The Definition and Measurement of Job Involvement. Journal of Applied Psychology, 1965, 49, 24-33.
- MacKinney, A.C. The Assessment of Performance Change: An Inductive Example. Organisational Behaviour and Human Performance, 1967, 2, 56-72.
- Malinovsky, M.R. and Barry, J.R. Determinants of Work Attitudes. Journal of Applied Psychology, 1965, 49, 446-451.
- Morgan, L.G. and Herman, J.B. Perceived Consequences of Absenteeism. Journal of Applied Psychology, 1976, 61, 738-742.
- Nicholson, N., Brown, C.A. and Chadwick-Jones, J.K. Absence from Work and Job Satisfaction. Journal of Applied Psychology, 1976, 61, 728-737.
- Oldham, G.R., Hackman, J.R. and Pearce, J.L. Conditions Under which Employees Respond Positively to Enriched Work. Journal of Applied Psychology, 1976, 61, 395-403.
- Osborn, R.N. And Hunt, J.G. Relations between Leadership, Size, and Subordinate satisfaction in a Voluntary Organisation. Journal of Applied Psychology, 1975, 60, 730-735.
- Owens, A.G. Factors Affecting the Decision to Re-Engage Among ARA Soldiers. (1 Psychological Research Unit, Research Report 2/67)
1 Psychological Research Unit, Melbourne, 1967.
- Owens, A.G. Job Satisfaction and Re-Engagement Among Australian Regular Army Soldiers. Australian Journal of Psychology, 1969, 21, 137-144.
- Paine, F.T., Deutsch, D.R. and Smith, R.A. Relationship between Family Backgrounds and Work Values. Journal of Applied Psychology, 1967, 21, 137-144.
- Pinder, C.C. Additivity Versus Nonadditivity of Intrinsic and Extrinsic Incentives: Implications for Work Motivation, Performance and Attitudes. Journal of Applied Psychology, 1976, 61, 693-700.
- Pritchard, R.D. Effects of Varying Performance - Pay Instrumentalities on the the Relationship between Performance and Satisfaction: A Test of the Lawler and Porter Model. Journal of Applied Psychology, 1973, 58, 122-124.

- Pritchard, R.D., Campbell, K.M. and Campbell, D.J. Effects of Extrinsic Financial Rewards on Intrinsic Motivation. Journal of Applied Psychology, 1977, 62, 9-15.
- Schefflen, K.C., Lawler, E.E. and Hackman, J.R. Long-Term Impact of Employee Participation in the Development of Pay Incentive Plans: A Field Experiment Revisited. Journal of Applied Psychology, 1971, 55, 182-186.
- Schletzer, V.M. SVIB as a Predictor of Job Satisfaction. Journal of Applied Psychology, 1966, 50, 5-8.
- Schreishheim, C.A. and Murphy, C.J. Relationships between Leader Behaviour and Subordinate Satisfaction and Performance : A Test of Some Situational Moderators. Journal of Applied Psychology, 1976, 61, 634-641.
- Schultz, D.G. and Seigel, A.I. The Analysis of Job Performance by Multidimensional Scaling Techniques. Journal of Applied Psychology, 1964, 48, 329-335.
- Schuster, J.R., Clark, B. and Rogers, M. Testing Portions of the Porter and Lawler Model Regarding the Motivational Role of Pay. Journal of Applied Psychology, 1971, 55, 187-195.
- Shaw, M.E. and Blum, J.M. Group Performance as a Function of Task Difficulty and the Group's Awareness of Member Satisfaction. Journal of Applied Psychology, 1965, 49, 151-154.
- Smith, P.C., and Cranny, C.J. "Psychology of Men at Work". Annual Review of Psychology, 1968, 19, 467-496.
- Stone, E.F., Mowday, R.T. and Porter, L.W. Higher Order Need Strengths as Moderators of the Job-Scope - Job Satisfaction Relationship. Journal of Applied Psychology, 1977, 62, 466-471.
- Terborg, J.R. The Motivational Components of Goal Setting. Journal of Applied Psychology, 1976, 61, 613-621.
- Tuttle, T.C. and Hazel, J.T. Review and Implications of Job Satisfaction and Work Motivation for Air Force Research. Air Force Human Resources Laboratory, Texas, 1974.
- Umstot, D.D., Bell, C.H., Mitchell, T.R. Effects of Job Enrichment and Task Goals on Satisfaction and Productivity: Implications for Job Design. Journal of Applied Psychology, 1976, 61, 379-394.
- Van Maanen, J. and Katz, R. Individuals and Their Careers: Some Temporal Considerations for Work Satisfaction. Personnel Psychology, 1976, 29, 601-616.
- Wall, T.D. Ego-Defensiveness as a Determinant of Reported Differences in Sources of Job Satisfaction and Job Dissatisfaction. Journal of Applied Psychology, 1973, 58, 125-127.
- Waters, L.K., Roach, D. and Waters, C.W. Estimates of Future Tenure, Satisfaction and Biographical Variables as Predictors of Termination. Personnel Psychology, 1976, 29, 57-60.
- Wernimont, P.F. Intrinsic and Extrinsic Factors in Job Satisfaction. Journal of Applied Psychology, 1966, 50, 41-50.

- Wernimont, P.F., Toren, P. and Kapell, H. Comparison of Sources of Personal Satisfaction and of Work Motivation. Journal of Applied Psychology, 1970, 54, 95-102.
- Wolf, M.G. Need Gratification Theory: A Theoretical Reformulation of Job Satisfaction/Dissatisfaction and Job Motivation. Journal of Applied Psychology, 1970, 54, 87-94.
- Wood, D.A. and LeBold, W.K. The Multivariate Nature of Professional Job Satisfaction. Personnel Psychology, 1970, 23, 173-189.